

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-31. (Canceled).

32. (New – Withdrawn) A method of high frequency operation in an integrated circuit, said method comprising:

accessing charge stored in a capacitor comprising a plurality of deep n well regions formed in an epitaxy region of said integrated circuit; and
coupling said charge to a transistor device of said integrated circuit enabling switching at said high frequency.

33. (New – Withdrawn) The method of Claim 32 wherein said capacitor further comprises bulk p + material.

34. (New – Withdrawn) The method of Claim 32 wherein said capacitor further comprises a p well.

35. (New – Withdrawn) The method of Claim 32 wherein said coupling is parasitic.

36. (New – Withdrawn) The method of Claim 32 wherein said plurality of deep n well regions comprise substantially parallel stripes.

37. (New – Withdrawn) The method of Claim 32 wherein said plurality of deep n well regions comprise a grid.

38. (New – Withdrawn) The method of Claim 32 wherein said plurality of deep n well regions comprise more than one layer of deep n well.

39. (New) An integrated circuit comprising:

a plurality of transistors having a principal operating voltage;

a deep n well capacitor structure comprising;

a deep n well comprising n-type material coupled to said principal operating voltage; and

p-type material disposed proximate said deep n well and coupled to a ground reference.

40. (New) The integrated circuit of Claim 39 wherein said deep n well is substantially surrounded by said p-type material.

41. (New) The integrated circuit of Claim 39 comprising a plurality of said deep n wells.

42. (New) The integrated circuit of Claim 39 wherein said deep n well is parasitically coupled to said principal operating voltage.

43. (New) The integrated circuit of Claim 39 wherein said p-type material comprises epitaxy.

44. (New) The integrated circuit of Claim 39 wherein said p-type material comprises bulk p material.

45. (New) The integrated circuit of Claim 39 wherein said p-type material comprises a p well.

46. (New) The integrated circuit of Claim 45 wherein said p well is at substantially a same depth as said deep n well.

47. (New – Withdrawn) An integrated circuit comprising:

a first deep n well at a first depth to supply on-chip decoupling capacitance; and
a second deep n well at a second depth to supply on-chip decoupling capacitance.

48. (New – Withdrawn) The integrated circuit of Claim 47 wherein said first and said second deep n wells are coupled together.

49. (New – Withdrawn) The integrated circuit of Claim 47 further comprising a plurality of transistors having a principal operating voltage and wherein said first and said second deep n wells are coupled to said principal operating voltage of said plurality of transistors of said integrated circuit.

50. (New – Withdrawn) The integrated circuit of Claim 47 wherein said first and said second deep n wells are coupled to a ground reference for said integrated circuit.

51. (New – Withdrawn) The integrated circuit of Claim 47 wherein said first and said second deep n wells are substantially surrounded by p type material.

52. (New – Withdrawn) The integrated circuit of Claim 47 wherein said first and said second deep n wells are formed with the same process mask.

53. (New – Withdrawn) The integrated circuit of Claim 51 wherein said first and said second deep n wells substantially surrounded by said p type material to form a power supply decoupling capacitor.

54. (New – Withdrawn) The integrated circuit of Claim 47 comprising a p well at substantially said first depth.

55. (New – Withdrawn) An integrated circuit as described in Claim 47 further comprising a deep p well disposed between said first and said second deep n wells.

56. (New – Withdrawn) A deep n well capacitor comprising a deep n well region of an integrated circuit, said deep n well coupled to Vdd and ground and has a surface area selected to provide a specified amount of capacitance.

57. (New – Withdrawn) The deep n well capacitor of Claim 56 further comprising a plurality of deep n well regions coupled together.

58. (New – Withdrawn) The deep n well capacitor of Claim 57 wherein said plurality of deep n well regions are substantially parallel.

59. (New – Withdrawn) The deep n well capacitor of Claim 57 wherein said plurality of deep n well regions comprise deep n well regions at different depths of said integrated circuit.

60. (New – Withdrawn) The deep n well capacitor of Claim 57 comprising a plurality of p well regions at substantially the same depth as said plurality of deep n well regions and wherein said plurality of p well regions are disposed between said plurality of deep n well regions.

61. (New – Withdrawn) The deep n well capacitor of Claim 56 wherein said deep n well region is substantially surrounded by p type material.

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62. (New – Withdrawn) The deep n well capacitor of Claim 56 wherein said deep n well region is parasitically coupled to said Vdd.